

# Claims

[c1] What is claimed is:

1. A method for generating a command file of a group of design rule check (DRC) rules for being used by a layout verification tool to verify the design of an integrated circuit, the method comprising:
  - (a) selecting a process from a group of processes;
  - (b) setting a set of parameters; and
  - (c) extracting program codes from a plurality of modules according to the selected process and the set of parameters so as to generate a corresponding command file of DRC rules.

[c2] 2. The method of claim 1 further comprising:

- (d) generating the plurality of modules, the plurality of modules comprising:
  - a header module comprising program codes for settings of a verification tool of different processes;
  - a variable module comprising program codes for setting fabrication parameters of different processes;
  - a layer module comprising program codes for setting layer definitions of different processes; and
  - an operation module comprising program codes of oper-

ation definitions of different processes.

- [c3] 3. The method of claim 1 wherein the parameters comprise number of metal layers.
- [c4] 4. The method of claim 1 wherein the parameters comprise number of poly-silicon layers.
- [c5] 5. The method of claim 1 wherein the parameters comprise package parameters.
- [c6] 6. A method for generating a command file of a group of layout versus schematic (LVS) rules and layout parasitic extraction (LPE) rules to be used by a layout verification tool to verify the layout and the parasitic characteristics of an integrated circuit, the method comprising:
  - (a) selecting a process from a group of processes;
  - (b) setting a set of parameters; and
  - (c) extracting program codes from a plurality of modules according to the selected process and the set of parameters so as to generate a corresponding command file of LVS/LPE rules.
- [c7] 7. The method of claim 6 further comprising:
  - (d) generating a plurality of modules, the plurality of modules comprising:
    - a header module comprising program codes for settings of a verification tool of different processes;

a layer module comprising program codes for setting layer definitions of different processes; an operation module comprising program codes of operation definitions of different processes; and a device module comprising program codes for declaring devices of different processes.

- [c8] 8. The method of claim 6 wherein the parameters comprise number of metal layers.
- [c9] 9. The method of claim 6 wherein the parameters comprise number of poly-silicon layers.
- [c10] 10. The method of claim 6 wherein the parameters comprise package parameters.
- [c11] 11. A method for generating a command file of a group of design rule check (DRC) rules or layout versus schematic (LVS) rules and layout parasitic extraction (LPE) rules to be used by a layout verification tool to verify the layout and the parasitic characteristics of an integrated circuit, the method comprising:
  - (a) choosing whether to generate a command file of DRC rules or a command file of LVS/LPE rules;
  - (b) selecting a process from a group of processes;
  - (c) setting a set of parameters; and
  - (d) extracting program codes from a plurality of modules

according to the choice in step (k), the selected process, and the set of parameters so as to generate a command file of DRC rules or LVS/LPE rules.

- [c12] 12. The method of claim 11 further comprising:
  - (e) generating a plurality of modules, the plurality of modules comprising:
    - a header module comprising program codes for settings of a verification tool of different processes;
    - a variable module comprising program codes for setting fabrication parameters of different processes;
    - a layer module comprising program codes for setting layer definitions of different processes;
    - an operation module comprising program codes of operation definitions of different processes; and
    - a device module comprising program codes for declaring devices of different processes;
- 13. The method of claim 11 wherein the parameters comprise number of metal layers.

  

- [c13] 14. The method of claim 11 wherein the parameters comprise number of poly-silicon layers.
- [c14] 15. The method of claim 11 wherein the parameters comprise package parameters.